

PATENT SPECIFICATION

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DRAWINGS ATTACHED.



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COMPLETE SPECIFICATION.

Improvements in or relating to Legs for Tables and the like.

I, MORRIS MATTHEW FREEDLAND, a British Subject, of 91 Cavendish Road, Kersal, Salford 8, in the County of Lancaster, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention concerns legs for tables and like articles of furniture.

In the furniture trade, it is usual, whenever possible, to construct articles in such a manner that they can be dismantled for packing and transportation, and can readily be reassembled by the customer.

With articles, such as tables, having tubular metal legs, it has been usual, hitherto, to construct each leg with a welded-on plate on one end, such plate being adapted to be secured to the underside of the table top by screws or like means. Certain disadvantages arise in such construction however. Firstly, the weld must be firm and strong, otherwise the leg can easily become loosened and detached from the plate, with consequent need for repair. Secondly, the welding must be effected accurately, otherwise there will be angular variations in the legs relative to their plates. Thirdly, there is a marked reluctance, amongst customers in the trade, to deal in articles requiring use of tools for their assembly. Thus, the arrangement requiring the plate of each leg to be screwed to the underside of the table top is not well received.

The object of the present invention is to provide a construction of tubular metal leg wherein the afore-mentioned difficulties are avoided, the arrangement permitting a tubular metal leg to be screwed or secured into a complementary block recess or the

like provided on or in the table top, without the use of tools, whilst assuring firm leg attachment.

According to the present invention a tubular metal leg for a table or like article of furniture is characterised by the provision, at one end thereof, of a wooden element having an exposed portion capable of being engaged into a complementary aperture, recess or the like on the underside of a table top, and screw means for enabling said exposed portion to be drawn tightly into said aperture, recess or the like.

Preferably such wooden element has a flange or shoulders providing an abutment surface or surfaces which, in use, will abut a corresponding surface of a block, under frame or the like, to ensure stability of the leg.

The wooden element may conveniently be secured to the tubular metal of the leg by forcing a spigot portion of such element into the tubular metal, and such spigot portion may be grooved or slotted to facilitate its entry therein.

The invention also includes a table or like article of furniture having, on its underside, a plurality of attached blocks, an underframe, or the like providing apertures, recesses or the like, and a leg as aforesaid secured into each such aperture or recess.

The invention will be described further, by way of example, with reference to the accompanying drawings, in which:—

Figure 1 is an underneath perspective view of a table incorporating one practical form of leg in accordance with the present invention;

Figure 2 is an enlarged fragmentary cross-sectional side elevation showing the connection between the leg and the table top in the arrangement of Figure 1.

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Figure 3 is a fragmentary perspective view showing the manner in which a second form of leg according to the invention is secured to an underframe of a table;

- 5 Figure 4 is a plan view corresponding to Figure 3, but showing the leg secured in position; and

- 10 Figure 5 is a part-sectional elevation corresponding to Figure 4, showing a table top secured to the underframe.

- Referring to Figures 1 and 2, the table illustrated comprises a table top 10 of conventional form and of rectangular shape, and has, on its underside adjacent each corner, a wooden block 11 secured by screws 12. Each of these blocks 11 is roughly pear-shaped in plan, and is bored at 13 at approximately 80° to the table top 10. Each such bore 13 is provided with a coarse screw thread.

- A leg is screwed into each block 11, and each leg comprises a length 14 of tubular metal having a wooden element 15 secured at one end thereof. Such element 15 is substantially circular in cross-section having a large-diameter flange-like central portion 16 which is integral with a spigot 17 which is of slightly larger outside diameter than the inside diameter of the tubular metal length 14 and projects at one side of the central portion and a reduced diameter screw portion 17a which projects at the other side of the central portion 16 and is screw-threaded complementarily to the screw-threaded bore 13 of the block 11.

- The spigot part 17 of the element 15 is slotted longitudinally at 18 (i.e. parallel to the axis of the element) and is secured into the tube 14 by forcing it in, using a hydraulic ram or the like. The slots 18 facilitate entry of the spigot 17 into the tube 14 and ensures that the element is firmly connected thereto.

- When the legs are screwed into their respective blocks 11, which can be effected completely without the use of tools, the large diameter flange-like portions 16 abut complementary confronting surfaces 19 of the blocks 11 and ensure rigidity of attachment of the legs.

- Referring now to Figures 3, 4 and 5, these figures illustrate an alternative form of leg in accordance with the invention, and the attachment thereof to a table top. As can be seen more particularly in Figures 3 and 5, a table leg comprises a tubular metal length 20, such tube 20 having a wooden element 22 secured thereto by forcing a slotted spigot part 22a of the element into the tube 20. The element 22, as shown, is provided with shoulders 23 defining thereon a tongue 24 projecting substantially radially relative to the tube 20. Such shoulders 23 are inclined slightly relative to the axis of the tube 20, and an upper supporting surface 25 on the

element 22 is perpendicular to the shoulders 23. A threaded stud 26 projects from the tongue 24.

This form of leg is intended for use with a table top 27 (see Figure 5) to the underside of which are secured four wooden bearers 28 which constitute an underframe of the table. These bearers are chamfered as at 29 and the adjacent ends of adjacent bearers are spaced apart to define therebetween recesses 30 (see Figure 3) into which the tongues 24 of the respective legs can enter. Each bearer 28 is provided, near to each end thereof, with a slot 31, and a brace plate 32 engages into the adjacent slots 31 of adjacent bearers 28, as is shown clearly in Figure 3, being secured in position by screws 33. The stud 26 passes through an aperture 34 in the brace plate 32, and it will be evident from the drawings that the legs can be located in position very easily and the tightening of a wing nut 35 upon the stud 26 serves to draw the element 24 tightly into the recess 30 thus ensuring firm abutment of the shoulders 23 against the confronting ends of the bearers 28 and firm attachment of the legs.

The invention is not confined to the precise details of the foregoing examples. It will be obvious that legs in accordance with the invention can be applied to any article (such as a stool or chair) requiring the provision of tubular legs, and it can be applied to round or other shaped tables. If desired, the legs may be disposed perpendicularly or so that they converge, as opposed to the divergent arrangements described.

The invention can be employed where very small diameter tubular legs are to be attached to an article. In such instances the wooden element will be provided in the wide end of a tundish shaped adaptor or like element which receives the small diameter leg in its narrow end and is welded to such legs.

In both the described embodiments, the metal tubes of the legs receive spigots of the wooden elements, which spigots are forced into the tubes. In a modification, each wooden element is provided with a bore which serves to a slotted end of the respective metal tube for securing the element to the tube.

With the arrangement of Figures 3, 4 and 5, the tongue 24 may be tapered, the recess 30 in the underframe being complementarily tapered, for added rigidity.

WHAT I CLAIM IS:—

1. A tubular metal leg for a table or like article of furniture characterised by the provision, at one end thereof, of a wooden element having an exposed portion capable of being engaged into a complementary

aperture, recess or the like on the underside of a table top, and screw means for enabling said exposed portion to be drawn tightly into said aperture, recess or the like.

- 5 2. A tubular metal leg as claimed in Claim 1 wherein the wooden element has a flange or shoulders providing an abutment surface or surfaces which, in use, will abut a corresponding surface of a block, underframe or the like, to ensure stability of the leg.
- 10 3. A tubular metal leg as claimed in Claim 1 or 2 wherein the wooden element is secured to the tubular metal of the leg by forcing a slotted end of the tubular metal into a suitable bore in the element.
- 15 4. A tubular metal leg as claimed in Claim 1 or 2 wherein the wooden element is secured to the tubular metal of the leg by forcing a spigot portion of such element into the tubular metal.
- 20 5. A tubular metal leg as claimed in Claim 4 wherein the spigot portion is slotted or grooved to facilitate its entry into the tubular metal.
- 25 6. A tubular metal leg as claimed in any preceding claim wherein the wooden element has a screw-threaded portion adapted to screw into a screw-threaded bore of a block intended to be secured to the underside of a table top.
- 30

7. A tubular metal leg as claimed in any of Claims 1 to 5 wherein the wooden element has a radial tongue intended to be accommodated in a recess in a table underframe.

8. A tubular metal leg substantially as hereinbefore described with reference to and as illustrated in Figures 1 and 2 or Figures 3, 4 and 5 of the accompanying drawings.

9. A table or like article of furniture having, on its underside, a plurality of attached blocks, an underframe, or the like providing apertures, recesses or the like, and a leg as claimed in any one of the preceding claims secured into each such aperture or recess.

10. A table or like article of furniture substantially as hereinbefore described with reference to and as illustrated in Figures 1 and 2 or Figures 3, 4 and 5 of the accompanying drawings.

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PROVISIONAL SPECIFICATION.

Improvements in or relating to Legs for Tables and the like.

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In the furniture trade, it is usual, whenever possible, to construct articles in such a manner that they can be dismantled for packing and transportation, and can readily be reassembled by the customer.

With articles, such as tables, having tubular metal legs, it has been usual, hitherto, to construct each leg with a welded-on plate on one end, such plate being adapted to be secured to the underside of the table top by screws or like means. Certain disadvantages arise in such construction however. Firstly, the weld must be firm and strong, otherwise the leg can easily become loosened and detached from the plate, with consequent need for repair. Secondly, the welding must be effected accurately, otherwise there will be angular variations in the legs relative to their plates. Thirdly, there is a marked reluctance, amongst customers in the trade, to deal in

articles requiring use of tools for their assembly. Thus, the arrangement requiring the plate of each leg to be screwed to the underside of the table top is not well received.

The object of the present invention is to provide a construction of tubular metal leg wherein the afore-mentioned difficulties are avoided, the arrangement permitting a tubular metal leg to be screwed into a complementary block or the like previously secured to the table top.

According to the present invention a tubular metal leg for a table or like article of furniture is characterised by the provision, at one end thereof, of a wooden element having an exposed screw-threaded portion capable of being screwed into a complementary block or the like on the underside of a table top.

Preferably such wooden element has a flange or the like providing an abutment surface which, in use, will abut a corresponding surface of the block or the like, to ensure stability of the leg.

The wooden element may conveniently be secured to the tubular metal of the leg by forcing a spigot portion of such element into the tubular metal, and such spigot

portion may be grooved or slotted to facilitate its entry therein.

The invention also includes a table or like article of furniture having, on its underside, a plurality of attached blocks each having a threaded bore, and, for each block, a leg as aforesaid attached by screwing the exposed screw-threaded portion into the bore.

The invention will be described further, by way of example, with reference to one preferred form thereof, as applied to a table.

The table comprises a table top of conventional form and of rectangular shape, and has, on its underside adjacent each corner, a wooden block secured by grooves. Each of these blocks is bored perpendicularly to the table top and such bore is provided with a coarse screw thread.

A leg is screwed into each block, and each leg comprises a length of tubular metal having a wooden element secured at one end thereof. Such element is substantially circular in cross-section having a large diameter flange-like central portion which is integral with a spigot which is of slightly larger outside diameter than the inside diameter of the tubular metal length and which projects at one side of the central portion, and a reduced diameter screw portion which projects at the other side of the central portion and is screw-threaded complementarily to the screw-threaded bore of the block.

The spigot part of such element is grooved longitudinally (i.e. parallel to the axis of the element) and is forced into the end of the tubular metal length by forcing it in, using

a hydraulic ram or the like. The groove facilitates entry of the spigot into the tubular metal and ensures that the element is firmly connected thereto.

When the legs are screwed into their respective blocks, which can be effected completely without the use of tools, the large diameter flange-like portions abut the confronting surfaces of the blocks and ensure rigidity of attachment of the legs.

The invention is not confined to the precise details of the foregoing example. It will be obvious that legs in accordance with the invention can be applied to any article (such as a stool or chair) requiring the provision of tubular legs, and it can be applied to round or other shaped tables. If desired, the bores in the blocks may be disposed angularly so that the legs of the article diverge or converge.

The spigot part of the wooden element can, if desired, be provided with a saw cut instead of a longitudinal groove such as has been described.

The invention can be employed where very small diameter tubular legs are to be attached to an article. In such instance the wooden element will be provided in the wide end of a funnel shaped adaptor or like element which receives the small diameter leg in its narrow end and is welded to such legs.

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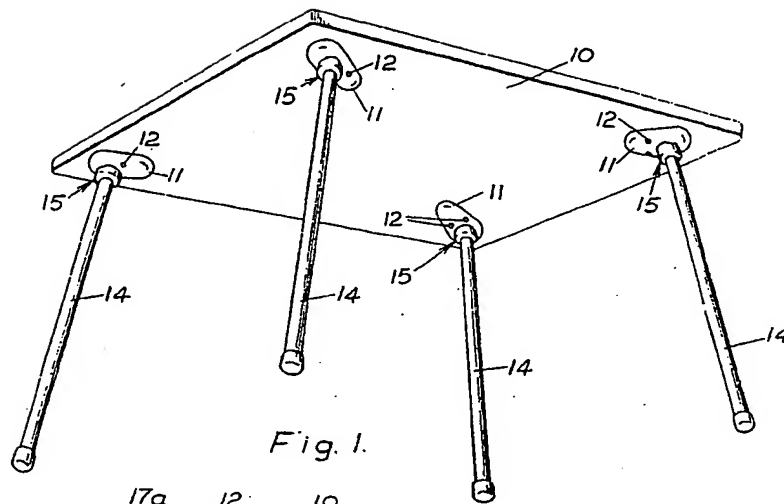


Fig. 1.

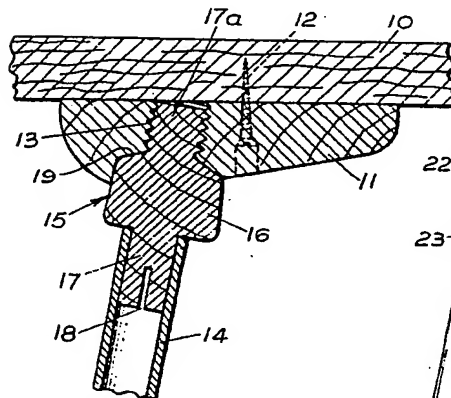


Fig. 2.

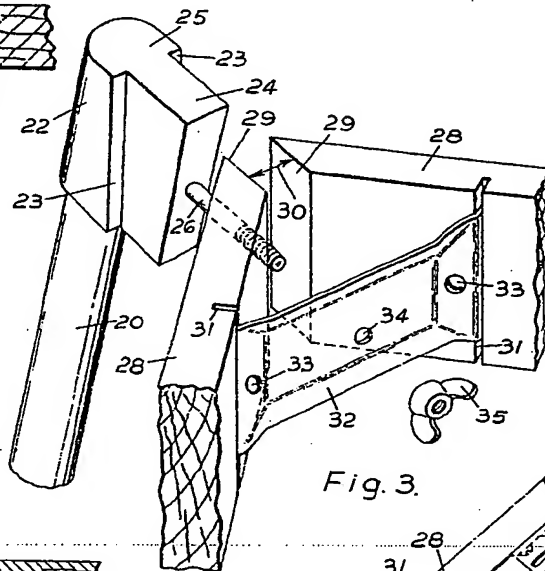


Fig. 3.

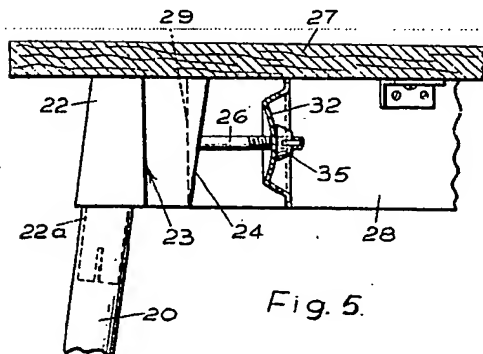


Fig. 5.

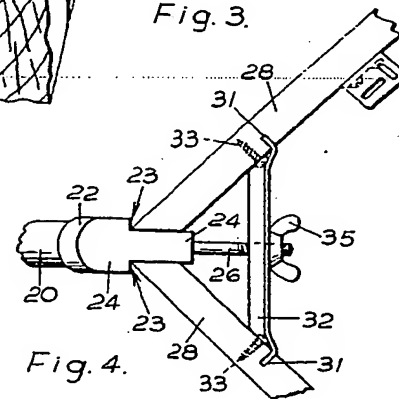


Fig. 4.

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